



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/915,884	07/26/2001	Joseph Paul Kuczynski	ROC920010031US1	7502

7590 11/20/2003  
Steven W. Roth  
IBM Corporation, Dept. 917  
3605 Highway 52 North  
Rochester, MN 55901-7829

EXAMINER

MARTINEZ, JOSEPH P

ART UNIT	PAPER NUMBER
----------	--------------

2873

DATE MAILED: 11/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/915,884	<b>Applicant(s)</b> KUCZYNSKI, JOSEPH PAUL	
	<b>Examiner</b> Joseph P. Martinez	<b>Art Unit</b> 2873	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 28 August 2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All   b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.  
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                  | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

**DETAILED ACTION*****Double Patenting***

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1 and 11 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1 and 11 of copending Application No. 09/915,884. Although the conflicting claims are not identical, they are not patentably distinct from each other because copending Application No. 10/161,280 teaches the use of acrylate adhesives. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify an optoelectronic device with a multifunctional acrylate resin in order to provide an optoelectronic device capable of maintaining stable glued joints in a variety of conditions.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

Art Unit: 2873

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 22-25 are rejected under 35 U.S.C. 102(b) as being fully anticipated by Gilliland et al. (5778127).

Re claim 22, Gilliland et al. teach for example, an optical subassembly for an optoelectronic module, comprising: a housing (housing 10, fig. 1) defining an interior cavity; a lens (lens 28, fig. 1) which refracts light passing between said interior cavity and outside said housing (col. 2, ln. 1-4); an optoelectronic (diode package 25, fig. 1) device facing said interior cavity opposite said lens; and an adhesive interface filling (optical filler composition 50, fig. 1) at least a portion of said interior cavity between said lens and said optoelectronic device(col. 2, ln. 35-36), said adhesive interface being in physical contact with said lens and said optoelectronic device (fig. 1), wherein light passing between said optoelectronic device and said lens passes through said adhesive interface (col. 2, ln. 46-49).

Re claims 23-24, Gilliland et al. further teach for example, encapsulated optoelectronic device includes a laser or a photoelectric receiver chip (col. 1, ln. 62-64).

Re claim 25, Gilliland et al. further teach for example the lens has a surface the shape of which is selected based on a refractive index of the adhesive interface (col. 2, ln. 1-4, ln. 54-57).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4, 7-13, 15-17, 19-21 and 27-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilliland et al. (5778127) in view of Bowen et al. (4186996).

Re claims 1 and 27, Gilliland et al. teach for example, an optical subassembly for an optoelectronic module, comprising: a lens (lens 28, fig. 1); an optoelectronic device (diode package 25, fig. 1); a housing (housing 10, fig. 1) maintaining a predetermined gap (gap 40, fig. 1) between said lens and said optoelectronic device; an adhesive interface (optical filler 50, fig. 1) positioned in said gap between and in physical contact with the lens and the optoelectronic device (col. 2, ln. 33-43). By not specifying the amount or volume of coverage, Gilliland et al. further suggest that the gap (gap 40, fig. 1) can be completely filled with the optical filler (optical filler, fig. 1) in order to encapsulate the optoelectronic device, but fail to implicitly teach the optoelectronic device is encapsulated. However, within the same field of endeavor of optical subassemblies with transistor-outline cans, Bowen et al. teach for example, that an optoelectronic device can be encapsulated within a housing (fig. 4, col. 5, ln. 12-18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Gilliland et al. and Bowen et al. in order to permanently mount the device.

Re claim 11, Gilliland et al. further teach for example, an optoelectronic module, comprising: a housing (housing 10, fig. 1); an electronic circuit board mounted within the housing (col. 2, ln. 20-23); at least one optical subassembly (optical transmitter or receiver, fig. 1, col. 2, ln. 20-23) connected to the electronic circuit board, the at least one optical subassembly comprising: a lens (lens 28, fig. 1); an optoelectronic device (diode package 25, fig. 1); a subassembly housing (housing 10, fig. 1) maintaining a predetermined gap (gap 40, fig. 1) between said lens and said encapsulated optoelectronic device; an adhesive interface (optical

filler 50, fig. 1) positioned in said cap between and in physical contact with the lens and the encapsulated optoelectronic device (col. 2, ln. 33-43). By not specifying the amount or volume of coverage, Gilliland et al. further suggest that the gap (gap 40, fig. 1) can be completely filled with the optical filler (optical filler, fig. 1) in order to encapsulate the optoelectronic device, but fail to implicitly teach the optoelectronic device is encapsulated. However, within the same field of endeavor of optical subassemblies with transistor-outline cans, Bowen et al. teach for example, that an optoelectronic device can be encapsulated within a housing (fig. 4, col. 5, ln. 12-18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Gilliland et al. and Bowen et al. in order to permanently mount the device.

Re claim 15, Gilliland et al. further teach for example, a method of making an optical subassembly for an optoelectronic module, comprising the steps of: positioning said optoelectronic device with respect to a housing, said housing maintaining a gap between said lens and said optoelectronic device; applying an adhesive to a lens; applying an adhesive to an optoelectronic device; joining the lens having the adhesive applied thereto and the optoelectronic device having the adhesive applied thereto; curing the joined adhesive to form an adhesive interface positioned between and in physical contact with the lens and the optoelectronic device (col. 1, ln. 55-67 to col. 2, ln. 1-61, the office interprets “injection of the optical filler composition within the gap” (col. 2, ln. 40-41) to teach applying the optical filler to the lens and optoelectronic device). By not specifying the amount or volume of coverage, Gilliland et al. further suggest that the gap (gap 40, fig. 1) can be completely filled with the optical filler (optical filler, fig. 1) in order to encapsulate the optoelectronic device, but fail to

implicitly teach the optoelectronic device is encapsulated. However, within the same field of endeavor of optical subassemblies with transistor-outline cans, Bowen et al. teach for example, that an optoelectronic device can be encapsulated within a housing (fig. 4, col. 5, ln. 12-18). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Gilliland et al. and Bowen et al. in order to permanently mount the device.

Re claims 2-3 and 16-17, Gilliland et al. further teach for example, encapsulated optoelectronic device includes a laser or a photoelectric receiver chip (col. 1, ln. 62-64).

Re claims 4 and 13, Gilliland et al. further teach for example the lens has a surface the shape of which is selected based on a refractive index of the adhesive interface (col. 2, ln. 1-4, ln. 54-57).

Re claim 7-8, Gilliland et al. further teach for example, the adhesive interface has a predetermined optical transmittance at the operating wavelength of the encapsulated optoelectronic device, which is about 850nm (col. Col. 1, ln. 30-44).

Re claims 9 and 19, Gilliland et al. further teach for example, the adhesive interface is formed by curing an adhesive material selected from the group consisting of epoxy adhesives (col. 1, ln. 15) or silicone based adhesives (col. 2, ln. 49-61).

Re claims 10 and 20-21, Gilliland et al. teach the optical subassembly as disclosed above, including the use of an optical filler material as an adhesive, but fail to implicitly teach the use of an adhesive material that is a urethane-acrylate adhesive that includes a polyurethane oligomer or the curing step includes UV or thermal curing. Official Notice taken. It is well known in the art of optical subassemblies to use adhesive material that is a urethane-acrylate adhesive that

includes a polyurethane oligomer for their optical properties or that various optical adhesives cure in different manners.

Re claim 12, Gilliland et al. further teach for example, at least one optical subassembly includes a transmitter optical subassembly the optoelectronic device of which includes a laser, and wherein the at least one optical subassembly includes a receiver optical subassembly the optoelectronic device of which includes a photoelectric receiver chip (col. 1, ln. 7-10).

Re claims 28-30, Gilliland further teach for example, the optoelectronic device is a transistor-outline can (col. 1, ln. 61-62).

Claims 5-6, 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilliland et al. (5778127) in view of Bowen et al. (4186996) in further view of Cohn et al. (6302596).

Re claims 5, 14, and 18, Gilliland et al. in view of Bowen et al. teach the optical subassembly as disclosed above, but fail to implicitly teach the lens is integrally formed with the housing. However within the same field of endeavor of optical subassemblies, Cohen et al. teach the lens (lens 108, fig. 2) is integrally formed with the housing (col. 6, ln. 9-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Gilliland et al. in view of Bowen et al. with Cohen et al. in order to provide an optical subassembly with an integral lens such that no assembly and alignment process is needed.

Re claim 6, Cohen et al. further teach for example, at least a portion of the housing member and the lens is formed from polyetherimide (col. 6, ln. 15).



Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gilliland et al. (5778127) in view of Cohen et al. (6302596).

Re claim 26, Gilliland et al. teach the optical subassembly as disclosed above, but fail to implicitly teach the lens is integrally formed with the housing. However within the same field of endeavor of optical subassemblies, Cohen et al. teach the lens (lens 108, fig. 2) is integrally formed with the housing (col. 6, ln. 9-11). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of Gilliland et al. with Cohen et al. in order to provide an optical subassembly with an integral lens such that no assembly and alignment process is needed.

***Response to Arguments***

Applicant's arguments with respect to claims 1-27 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2873

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

*Conclusion*


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph P. Martinez whose telephone number is 703-305-0577.

The examiner can normally be reached on M-F 7:00 AM to 3:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on 703-308-4883. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-4883.

JPM  
11-11-03

A handwritten signature in black ink, appearing to read "JPM", is located in the lower right area of the page.